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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/620,107

07/15/2003

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EXAMINER

DANG, HUNG Q

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/620,107	Applicant(s) YAMASHITA ET AL.	
	Examiner HUNG Q. DANG	Art Unit 2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 4/25/2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,6-15,17 and 18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,6-15,17 and 18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This communication is in response to application's amendment dated 4/25/2008. The amendments of claims 1, 3, 10, 13, 17, 18; and the cancellation of claims 5 and 16 have been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1, 10, 17 and 18 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4, 7, 8, 10-15 and 17-18 are rejected under 35 U.S.C. 103(a) as being anticipated by applicant's prior art admission based on JP 2002-35009 in view of Malackowski et al. U.S. Pub 2003/0093103 and in further view of Chrysanthakopoulos et al. U.S. Patent 7,058,563.

Regarding claim 17, applicant's prior arts admission teaches a connection assembly (Figure 14, unit 101) detachably connected to a main body of a dental apparatus for use in dental diagnosis and treatment, wherein said connection assembly has a communication means for sending to said main body ID information necessary for

driving said connection assembly (Figure 14; page 2 of the specification states that "... upon connecting the instrument 101 to the main body of the apparatus, **identification signals** are actively output for individually identifying the instrument 101 to the main body of the apparatus from the identification signal output means 106 via the connection terminal 106e. Then the main body of the apparatus specifies which instrument is connected to supply driving power, water, air and so on corresponding to the connected instrument, thereby setting a display or a control program of the apparatus suitable for the connected instrument. Therefore, different kinds of diagnosis can be executed comfortably by sequentially attaching, detaching and connecting plural kinds of instruments to the same connection part").

However, applicant's prior art admission does not teach sending from the connection assembly to the main body functional information for driving said connection assembly.

Malackowski et al., in the same field of endeavor, teaches a connection assembly detachably connected to a main body of a surgical apparatus, wherein said connection assembly has a communication means for sending to said main body functional information comprising a parameter for driving said connection assembly (abstract; see paragraphs [0011] and [0045]; the functional information in this case is the information that identifies the type of hand piece; information that describes the operating characteristics of the hand piece motor; and other types of information that can be used to regulate the operation of the hand piece).

Since, such surgical connection assembly disclosed by Malackowski et al. can possibly be used in a dental apparatus, therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide functional information, such as the type of functional information disclosed by Malackowski et al., from the connection assembly to the main body disclosed by applicant's prior art admission, so that a specific operation of the connection assembly can be regulated by the main body from the received functional information without requiring the storage of information at the main body.

However, Malackowski et al. does not specifically disclose that the received functional information being executable control program.

Chrysanthakopoulos et al. teaches a device driver auto-load method/apparatus, wherein when an external device is inserted and detected, the main console will load the appropriate available driver stored in its memory to drive said device. If none of the drivers on the memory are suitable, the main console will prompt a user to manually insert a computer readable medium contain the appropriate driver(s) (abstract and figure 3). Clearly, the executable control program (device's driver) have been known to be either previously stored in the main console or can be loaded up from an external device.

Since Malackowski et al. teaches that functional information can be stored in an external connection assembly and Chrysanthakopoulos et al. teaches that executable information such as device's driver(s) can also be stored in an external device for driving said external device, therefore, it would have been obvious to one of ordinary

skill in the art at the time the invention was made to further provide MORE information (control program such as device's drivers) to the external connection assembly disclosed by applicant's prior art admission in view of Malackowski et al., as evidenced by Chrysanthakopoulos et al., so that new external devices can be connected to the main console and driven by said main console.

Claims 1 and 18 are rejected for similar reasons as the rejection of claim 17, since these claims are broader in scope than claim 17.

Regarding claim 2, the communication means of the connection assembly disclosed by applicant's prior arts admission is also a parallel output type of communication means (Figure 14, units 106s indicates parallel output).

Regarding claim 3, the communication means of the connection assembly disclosed by applicant's prior arts admission also includes a storage means for memorizing and storing said information (identification information; page 2 lines 13-15 and lines 26-33 of the specification).

Regarding claim 4, the communication means of the connection assembly disclosed by applicant's prior arts admission is also a communication integration element (Figure 14, unit 106 and page 2 of the specification).

Regarding claim 7, the connection assembly disclosed by applicant's prior arts admission also includes a connection assembly part for detachably connecting said connection assembly to said main body, wherein said connection part constitutes a multi-junction connection (Figure 14 and page 2 lines 5-9).

Regarding claim 8, the communication means of the connection assembly disclosed by applicant's prior arts admission is also a passive element electrically connected to the main body (page 2 lines 30-34 of the specification indicates that the main body of the apparatus specifies with instrument is connected to supply **driving power**to the connected instrument, which implies that the communication means is a passive element).

Claims 10-12 and 14 are rejected similarly as claim 17. The connection assembly disclosed by applicant's prior arts admission also includes communication means for sending and receiving information on said connection assembly to and from said main body of said dental apparatus, and wherein function to be achieved by said connection assembly is realized cooperating with said connection assembly by the information obtained from said communication means upon connecting said connection assembly to said main body of said dental apparatus (page 2 lines 30-37 of the specification "...to supply driving power**setting a display**.....or a **control program** of the apparatus suitable for the connected instrument....").

Regarding claim 15, the wiring to a connection part for detachably connecting said connection assembly to the main body disclosed by applicant's prior arts admission is also a multi-branch structure (Figure 14b, units 106Es constitute a multi-branch structure). The multi-branch structure (106Es) on the connection assembly disclosed by the applicant's prior art admission implies that there is a corresponding multi-branch structure on the main body so that the multi-branch structure of the connection assembly may be connected to said body.

Regarding claim 9, applicant's prior arts admission on page 2 of specification teaches the connection assembly as claimed in claim 1, except wherein connection assembly includes a chargeable battery.

Applicant's prior arts admission also discloses conventional dental apparatuses that are equipped with rechargeable battery as a self-driving source to be controllable and chargeable (page 1 lines 1-25 of the specification).

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to provide a rechargeable battery to the connection assembly as disclosed by applicant's prior arts admission so that said connection assembly can be a self-driving source and chargeable.

Regarding claim 6, applicant's prior arts admission discloses the connection assembly as set forth in claim 1 for having an identification signal output means, without specifying a nonvolatile storage means and wherein voltage level signals of which height value is varied at a predetermined repetition cycle or frequency identification signals of which frequency is varied is used as an identification signal from said identification signal output means. However, the Examiner gives Official notice that using varied voltage level signals or varied frequency signals as identification signals have been conventionally utilized in many communication applications. Therefore, by conventionality, it would have been obvious to one skilled in the art to use either a varied voltage level signal or a varied frequency signal as the identification signal of the connection assembly.

Regarding claim 13, Malackowski et al. also teaches storing a usage history of the specified connection assembly based on the functional information obtained from the connection assembly (paragraph [0169]). However, Malackowski et al. does not specifically disclose a distinction of the using operator of the specified connection assembly.

Since, Malackowski et al. teaches identifying the equipment that was used during the surgical procedure so that the patient can be appropriately charged for the equipment that was used; one of ordinary skill in the art would be motivated to provide the usage history of the operator (doctor's name) who operated said equipment so that a clear usage history concerns a specific connection assembly, the patient's name and the operator's name can be clearly recorded for billing purpose.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUNG Q. DANG whose telephone number is (571)272-3069. The examiner can normally be reached on 9:30AM-6PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Zimmerman can be reached on (571) 272-3059. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Hung Q Dang/
Examiner, Art Unit 2612

/Albert K Wong/
Primary Examiner, Art Unit 2612

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